

441-14G-3019
Troubleshoot Switches for Air Missile Defense (AMD) Operations
Status: Approved

Security Classification: U - Unclassified

Distribution Restriction: Approved for public release; distribution is unlimited.

Destruction Notice: None

Foreign Disclosure: FD1 - This training product has been reviewed by the training developers in coordination with the United States Army Fires Center of Excellence G32, Fort Sill, Oklahoma 73503 foreign disclosure officer. This training product can be used to instruct international military students from all approved countries without restrictions.

Conditions: You are in a field/tactical environment, the Air Battle Management System (ABMS) has just been erected and your ABMS is experiencing some problems operating. Your supervisor has directed you to troubleshoot the Switch on your Air Battle Management System. The following is available: References: 1) ADSI Installation and Configuration Guide, ADSI User Guide, TM 11-7010-320-10, TM 11-7010-543-10-1, TM 11-7010-543-10-2, TB 11-5895-1887-13, TM 11-5895-1887-23&P, TM 11-5895-1887-10, TM 11-5895-1887-SAM, TM 11-7010-363-SAM, TacViewC2 User Guide, and TM 11-7010-363-SUM; 2) Equipment: Digital Computer Workstation, Air Missile Defense Workstation (AMDWS), Center Communication Operations: AN/TSQ-253(V)5, Workstation: Airspace Operation AN/FSQ-211A, and Air Defense System Integrator (ADSI): AN/MSQ-214. Some iterations of this task should be performed in MOPP 4.

Standards: Troubleshoot Switch on the Air Battle Management System (ABMS) IAW the steps and procedures in ADSI Installation and Configuration Guide, ADSI User Guide, TM 11-7010-320-10, TM 11-7010-543-10-1, TM 11-7010-543-10-2, TB 11-5895-1887-13, TM 11-5895-1887-23&P, TM 11-5895-1887-10, TM 11-5895-1887-SAM, TM 11-7010-363-SAM, TacViewC2 User Guide, TM 11-7010-363-SUM and Tactical Standing Operating procedures (TSOP), utilizing the GO/NO-GO criteria, without error, without causing injury to self or other personnel, without damage to equipment, with minimal damage to the environment and within the time prescribed by local command directives.

Special Conditions: None

Safety Risk: Low

MOPP 4: Sometimes

Task Statements

Cue: You have been directed by your supervisor to troubleshoot your switches inside your AMD Shelter.

DANGER

None

WARNING

None

CAUTION

None

Remarks: None

Notes: All required Air Defense specific references and technical manuals will be provided by the local Air Defense Command.

Performance Steps

1. Verify fault is at the switch.
2. Check switch cables are seated properly (power and ethernet cables).
3. Check link lights of devices cabled into the switch for port activity.
4. Open HyperTerminal session to verify switch settings.
5. Issue show ip interface brief command to check interfaces.

a. Switch> enable.

b. Password: enablepassword.

c. Switch# show ip interface brief.

Note: If an interface used has administratively down shown under the Status column, issue the no shutdown command when in interface configuration mode for that interface.

6. Issue no shutdown command as required:

a. Switch# config terminal.

b. Switch (config#) interface ethernet0/0 / fastEthernet0/0 /Gigabitethernet0/0.

Note: Type in interface port to issue no shutdown command.

c. Switch (config-if#) no shutdown.

d. Switch (config-if#) exit.

e. Switch (config#) exit.

f. Switch#.

7. Issue ping command to test connectivity with devices on the network.

8. Reload switch configuration file.

Note: Refer to task 441-14G-2005 Configure Switches for AMD Operations.

9. Refer to Network Administrator for further guidance.

(Asterisks indicates a leader performance step.)

Evaluation Guidance: Score the Soldier GO if all steps are passed (P). Score the Soldier NO-GO if any step is failed (F). If the Soldier fails any step, show the soldier what he did wrong and how to do it correctly.

Evaluation Preparation: Ensure that all information, references, and equipment required to perform the task are available. Use the performance measures and the references to score the Soldier's performance. Brief the Soldier. Tell the Soldier what he is required to IAW the task conditions and standards.

| PERFORMANCE MEASURES | GO | NO-GO | N/A |
|---|----|-------|-----|
| 1. Verified fault is at the switch. | | | |
| 2. Checked switch cables are seated properly (power and ethernet cables). | | | |
| 3. Checked link lights of devices cabled into the switch for port activity. | | | |
| 4. Opened HyperTerminal session to verify switch settings. | | | |
| 5. Issued show ip interface brief command to check interfaces. | | | |
| 6. Issued no shutdown command as required: | | | |
| 7. Issued ping command to test connectivity with devices on the network. | | | |
| 8. Reloaded switch configuration file. | | | |
| 9. Referred to Network Administrator for further guidance. | | | |

Supporting Reference(s):

| Step Number | Reference ID | Reference Name | Required | Primary | Source Information |
|-------------|----------------------|--|----------|---------|--------------------|
| | 200-3-v11.8-3-c | TacViewC2, User's Guide - Version 11.8 | Yes | No | |
| | ADSI | ADSI USER MANUAL | Yes | No | |
| | TB- 11-5895-1887-13 | TECHNICAL BULLETIN SOFTWARE USER MANUAL FOR SOFTWARE, TACTICAL AIRSPACE INTEGRATION SYSTEM (TAIS) SOFTWARE VERSION 12.0.2 | Yes | No | |
| | TM 11-5895-1887-13 | Technical Bulletin Software user Manual For Software, Tactical Airspace integration System (TAIS) Software Version 12.0.2 | Yes | No | |
| | TM 11-5895-1887-23&P | FIELD MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST FOR COMMAND SYSTEM, TACTICAL (TACTICAL AIRSPACE INTEGRATION SYSTEM) (TAIS) AN/TSQ-221A(V)1 (NSN 5895-01-574-6798) (EIC 24B) AN/TSQ-221A(V)2 | Yes | No | |
| | TM 11-5895-1887-SAM | SOFTWARE ADMINISTRATORS MANUAL FOR TAIS SOFTWARE ADMINISTRATORS MANUAL (SAM) VERSION 12.0.3 (NSN N/A) (EIC N/A) | Yes | No | |
| | TM 11-7010-320-10 | OPERATOR MANUAL FOR FORWARD AREA AIR DEFENSE COMMAND, CONTROL AND INTELLIGENCE (FAAD C2I) SYSTEM, SYSTEM ADMINISTRATOR'S HANDBOOK (SOFTWARE VERSION 5.5C) | Yes | No | |
| | TM 11-7010-363-SAM | TECHNICAL MANUAL SOFTWARE ADMINISTRATORS MANUAL FOR AIR AND MISSILE DEFENSE WORKSTATION (AMDWS) VERSION 7.0.2.0 | Yes | No | |
| | TM 11-7010-363-SUM | TECHNICAL MANUAL SOFTWARE USERS MANUAL FOR AIR AND MISSILE DEFENSE WORKSTATION (AMDWS) VERSION 7.0.2.0 | Yes | No | |
| | TM 11-7010-543-10-1 | OPERATOR MANUAL FOR FORWARD AREA AIR DEFENSE (FAAD)/COUNTER-ROCKET, ARTILLERY, AND MORTAR COMMAND AND CONTROL (C-RAM C2) SYSTEM SOFTWARE USER GUIDE FOR COMMUNICATION CONTROL SET SUBSYSTEMS | Yes | No | |
| | TM 11-7010-543-10-2 | OPERATOR MANUAL FOR FORWARD AREA AIR DEFENSE (FAAD)/COUNTER-ROCKET, ARTILLERY, AND MORTAR COMMAND AND CONTROL (C-RAM C2) SYSTEM SOFTWARE USER GUIDE FOR COMMUNICATION CONTROL SET SUBSYSTEMS | Yes | No | |
| | TM 11-7010-544-10 | OPERATOR MANUAL FOR FORWARD AREA AIR DEFENSE COMMAND, CONTROL AND INTELLIGENCE (FAAD C2I) SYSTEM SOFTWARE USER GUIDE FOR COUNTER-ROCKET, ARTILLERY AND MORTAR (C2-RAM) COMMAND AND CONTROL (C2) (SOFTWARE VERSION 5.5C-2.2-P1) | Yes | No | |
| | TSOP | TACTICAL STANDING OPERATING PROCEDURES. | Yes | Yes | |

TADSS : None

Equipment Items (LIN):

| LIN | Name |
|--------|---|
| C77942 | Center Communications Operations: AN/TSQ-253(4) |

Materiel Items (NSN) :

| Step ID | NSN | LIN | Title | Qty |
|-----------------------------|-----|-----|-------|-----|
| No materiel items specified | | | | |

Environment: Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to the current Environmental Considerations manual and the current GTA Environmental-related Risk Assessment card.

Safety: In a training environment, leaders must perform a risk assessment in accordance with current Risk Management Doctrine. Leaders will complete the current Deliberate Risk Assessment Worksheet in accordance with the TRADOC Safety Officer during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW current CBRN doctrine. Everyone is responsible for safety. A thorough risk assessment must be completed prior to every mission or operation.

Prerequisite Individual Tasks : None

Supporting Individual Tasks : None

Supported Individual Tasks : None

Supported Collective Tasks : None

Knowledges :

| Knowledge ID | Knowledge Name |
|--------------|---|
| 113-K-10107 | Familiarization with router fundamentals |
| 113-K-10024 | router and LAN security, routing protocols, LAN/WAN topologies, LAN/WAN protocols |
| 113-K-10113 | Knowledge of routers |
| 113-K-10023 | knowledge of basic network concepts, router concepts, router command line interface knowledge |
| 113-K-10070 | Familiarization with TCP/IP subnetting/planning |

Skills :

| Skill ID | Skill Name |
|-------------|---|
| 113-S-10124 | Explain the difference between local and wide area networks |
| 2 | Basic knowledge of Networking |
| 113-S-10111 | Explain computing/networking hardware and software architecture |
| 113-S-10094 | Interpret basic networking terminology |
| 011-529S | Ability to use a computer |
| S0842 | Operate personal computer |
| 805C-S-0214 | Ability to use standard computer keyboard |
| 113-S-10028 | Configure Hardware |

ICTL Data : None